

# Aqueous dispersion based on polymer/polyurethane resins, process for the production thereof, coating compositions and use thereof

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## Abstract

Aqueous binder dispersions for aqueous coating compositions, which are stable in storage and have good applicational properties. The dispersions are obtainable by joint chain extension of one or more polyurethanes containing no urea groups, bearing ionic groups or groups convertible into ionic groups, having substantially terminal OH groups and having a number average molar mass ( $M_n$ ) of 1,000 to 10,000, an acid value of 5 to 50 and an OH value of 5 to 50 and II. one or more polymers containing hydroxyl groups based on ethylenically unsaturated monomers, having an acid value of 0 to 20, an OH value of 150 to 400 and a number average molar mass ( $M_n$ ) of 2,000 to 20,000, wherein the molar ratio of the hydroxyl groups of component I to those of component II is 1:6 to 1.0: 0.5, with III. one or more diisocyanates, in a molar ratio of the OH groups from components I and II to the NCO groups of component III of 1.05:1 to 10:1, in an anhydrous medium, neutralisation of at least a proportion of the groups present which are convertible into ionic groups and conversion of the resultant product into the aqueous phase.

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